

2021 ECMI Statistical Package: key findings

Apostolos Thomadakis

Highlights

Equity market

- The market capitalisation of listed companies in the EU-27 increased marginally by 0.8 % in 2020.
- The capital raised through initial public offerings increased by 20 % in 2020.
- The number of listed exchange-traded funds (ETFs) in the EU-27 rose by 40 % to 7 857 and the total value of ETF trading by 63 % to EUR 503 billion.

Debt securities

- The global amount of outstanding debt securities saw an increase in 2020, totalling EUR 105 trillion.
- Notional amounts of outstanding debt in the EU-27 rose, in terms of both value (+14 %) and GDP share (standing at 166 %).
- Issuance of securitised products fell 10 % to EUR 195 billion in the EU-27, while in the US it increased 76 % to EUR 3.3 trillion.

Exchange-traded derivatives

- The trading of interest rate derivatives (IRDs) in Europe slowed (-8.8 %) to EUR 383 trillion in 2020.
- Global trading in commodity derivatives remained stable at EUR 120 trillion, while the number of contracts reached 7.8 billion.

Over-the-counter derivatives

- The notional amount of over-the-counter traded derivatives increased by 2.6 % in 2020 and the gross market value by 34 %.
- Euro-denominated IRDs grew 11 % to EUR 116 trillion, representing 28 % of all contracts.
- Central clearing for IRD contracts shrank 3.5 %. At the end of 2020, 72 % of IRDs were cleared with central clearing counterparties.

Investment funds

- The number of undertakings for collective investment in transferable securities (UCITS) funds increased by 0.5 % in 2020 and the number of non-UCITS funds by 1.8 %.
- The net assets of UCITS funds totalled EUR 9.6 trillion, while those of non-UCITS reached EUR 6.4 trillion.
- Equity and bond funds represented 29 % and 24 % respectively of the total EU-27 investment fund market in terms of net assets.

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2021 ECMI Statistical Package: key findings

ECMI Research Report No 18 / December 2021

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his report provides an overview of the key findings of the <u>European Capital Markets Institute</u> (ECMI) Statistical Package 2020, a comprehensive and annually updated database on the dynamics of European and global capital markets (covering China, Japan, the US and other relevant markets). The key trends gleaned from the package on equity markets, debt securities, exchange-traded derivatives (ETDs), over-the-counter (OTC) derivatives and investment funds are outlined below. The statistical package covers the period up to 2020, which means that the initial impact of the COVID-19 pandemic is reflected in the figures.

1. Equity market

The year 2020 demonstrated the resilience of financial markets, despite being one of the most tumultuous in modern history with some unprecedented developments.

In 2020, the equity markets were characterised by sharp swings triggered by the COVID-19 pandemic. The drop in equity prices in March were followed by a rally in April, and the highs of August were followed by returns that were above their historic averages. In Europe, the equity market increased only marginally (+0.8 %) and reached an all-time high capitalisation of EUR 9.3 trillion (see Figure 1, left-hand panel), as governments, central banks and international institutions mobilised resources in an effort to mitigate the economic consequences of the pandemic¹. The largest increases were observed in Denmark (+28 %)² and Lithuania (+22 %)³, while the biggest losses were observed in Hungary (-22 %), Greece and Slovakia (-13 %).

In contrast with Europe, which has more cyclical stocks, the tech company-dominated US market finished the year in record territory after an increase of 19 % in market capitalisation (EUR 36 trillion).

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¹ In March, the European Central Bank announced the pandemic emergency purchase programme, an EUR 750 billion scheme that will fund the purchase of government and corporate bonds until the end of the COVID-19 crisis. In July, the EU approved a EUR 750 billion recovery fund to help Member States recover from the pandemic, consisting of EUR 390 billion in grants and EUR 360 billion in loans to be distributed among EU countries. In December, EU leaders approved the landmark EUR 1.8 trillion budget package (EUR 1.1 trillion for the multiannual financial framework and EUR 750 billion for the recovery fund). Finally, governments across Europe also announced spending packages to help businesses and households.

² Several factors contributed to this performance: an effective response to the coronavirus crisis (assisted by the country's robust social safety net), a collection of companies well positioned to weather the crisis (roughly 50 % of the market capitalisation of Danish stocks is almost recession-proof healthcare and pharmaceutical companies) and a well-balanced performance-based management system.

³ This was mainly due to retail investors' participation in the equity market. In 2020, roughly two of every three investors were retail investors, generating more than half of the stock market turnover.

An accommodative factor for that was the loose monetary policy of the Fed⁴ as well as the consistent resilience of the tech sector throughout the crisis.

Turning to Asia, the Chinese stock market boomed for a second consecutive year in 2020 (+35 %). Although China was the first country to record COVID-19 cases, early measures to contain the spread were deemed successful and boosted investor confidence – despite the ongoing geopolitical concerns with the US. The market cap also surged in Japan (+6.7 %). The early year volatility resulted in the government stepping up its fiscal response to the crisis and the Bank of Japan announcing additional monetary policy initiatives.

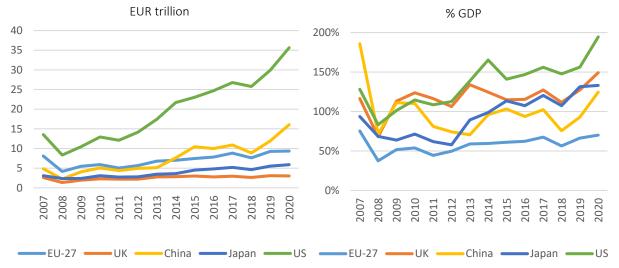


Figure 1. Domestic market capitalisation (2007-2020)

Notes: For the EU-27, the following stock exchanges are included: Athens, BME, Borsa Italiana, Bratislava, Bucharest, Budapest, Bulgaria, CEESEG — Prague, CEESEG — Vienna, Cyprus, Deutsche Börse AG, Euronext (Amsterdam, Brussels, Dublin, Paris and Lisbon), Ljubljana, Luxembourg, Malta, Nasdaq Nordics and Baltics (Copenhagen, Helsinki, Stockholm, Tallinn, Riga and Vilnius), Warsaw and Zagreb; for the UK, the London Stock Exchange; for the US, Nasdaq-US and NYSE; for China, Hong Kong Exchanges and Clearing, Shanghai and Shenzhen; and for Japan, the Japan Exchange Group.

Source: 2021 ECMI Statistical Package.

In relative terms, the EU-27 stock market capitalisation represented 70 % of GDP in 2020 (+3.8 percentage points compared with 2019). However, this was significantly lower than that of Japan (133 %), the UK (149 %) and the US (195 %) (see Figure 1, right-hand panel). Among the European stock exchanges, market capitalisation ranged from 1.0 % of GDP in Slovakia to 180 % of GDP in Sweden (see Figure 2). In particular, the three Nordic Member States, France and the Netherlands had markedly higher market capitalisations. The market capitalisation of stocks in other large European economies such as Germany, Italy and Spain were below the European average.

⁴ In March, the Fed cut interest rates twice for the first time since the global financial crisis, while it announced the unlimited purchasing of US Treasuries and mortgaged-backed securities.

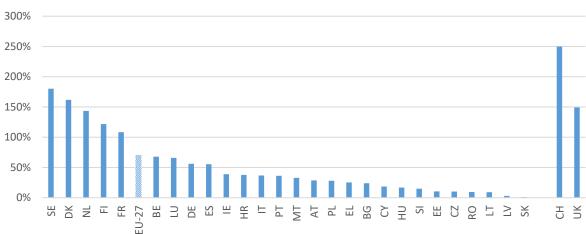


Figure 2. European stock market capitalisation (% of GDP, end-2020)

Source: 2021 ECMI Statistical Package.

The number of listed companies declined in 2020 in Europe (-1.3 % or -71 companies)⁵ and the UK (-3.3 % or -65 companies), while it increased substantially in China (+7.5 % or +466 companies), the US (+2.1 % or +99 companies) and Japan (+1.3 % or +50 companies). Considering the EUR 9.3 trillion market capitalisation of the 5 558 companies listed in the EU-27, the average market capitalisation was EUR 1.7 billion per listed company (see Figure 3). This represents a bit less than a quarter of the average market capitalisation of US companies (EUR 7.3 billion).

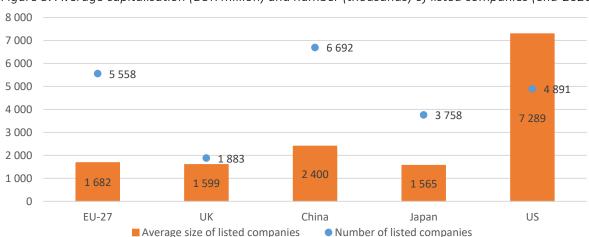


Figure 3. Average capitalisation (EUR million) and number (thousands) of listed companies (end-2020)

Source: 2021 ECMI Statistical Package.

Capital raised by newly and already listed EU-27 companies amounted to EUR 94 billion, 36 % more than the year before (see Figure 4). The vast majority of the new capital (85 % or EUR 80 billion) went to already listed companies and the remainder to newly listed companies through initial public offerings

⁵ Although the number of companies admitted for listing throughout Europe went down, the Austrian Wiener Börse continued its development of the past few years and recorded a further increase of 31 companies, bringing the total number of listed companies to 809.

(IPOs) (15 % or EUR 14 billion)⁶. The picture was very similar to other major markets, with China, Japan, the UK and the US all experiencing strong gains in investment flows.

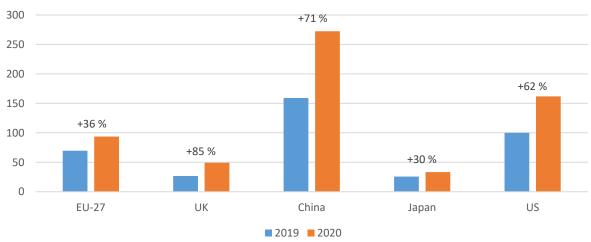


Figure 4. Capital raised by newly and already listed companies (EUR billion, 2019-2020)

Source: 2021 ECMI Statistical Package.

Focusing on the exchange-traded fund (ETF) market, the number of listed ETFs in the EU-27 increased by 40 % in 2020, reaching an all-time high of 7 857⁷. A similar trend followed in China (+32 %) and Japan (+7.9 %), while in the UK and the US the number of listed ETFs declined (-16 % and -4.7 %, respectively). The total traded value of ETFs grew sharply across all major economies: China (+74 %), EU-27 (+63 %), Japan (+88 %), the UK (24 %) and the US (+25 %). Yet, despite this positive trend, the average turnover of an ETF in the EU-27 was only EUR 64 million, compared with EUR 7.1 billion in the US (see Figure 5)⁸.



Figure 5. Average trading value (EUR million) and number (thousands) of listed ETFs (end-2020)

Source: 2021 ECMI Statistical Package.

⁶ Flows into European IPOs increased by 20 %. This was mainly due to JDE Peet'S NV IPO on Euronext Amsterdam, which was the largest IPO of 2020 and the first European mega-IPO (i.e. raised capital in excess of EUR 1 billion) since the beginning of the pandemic (PwC, 2021).

⁷ Around 80% of the European ETFs are concentrated in four exchanges (Börse Stuttgart, Deutsche Börse, Borsa Italiana and Euronext Paris).

 $^{^{8}}$ On the reasons for the disparity between the EU and the US, see Thomadakis (2018b).

2. Debt securities

In 2020, debt securities experienced a record year, fuelled by monetary and fiscal policies focused on supporting solvency and recovery. The total outstanding amount of debt securities in the considered economies reached an all-time high of EUR 99 trillion (+15 %) in 2020 (see Figure 6, left-hand panel). The largest increase was observed in China (+24 %), followed by the EU-27 (+14 %), the US (+13 %), Japan (+13 %) and the UK (+12 %). In relative terms, the debt-to-GDP ratio reached 166 % in the EU, while the largest increase was recorded in the US, where debt levels stood at 226 % (+34 %) (see Figure 6, right-hand panel).

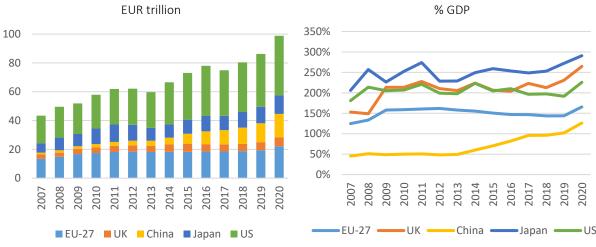


Figure 6. Total outstanding of debt securities (2007-2020)

Source: 2021 ECMI Statistical Package.

In the EU-27, the total outstanding amount of debt securities stood at EUR 22 trillion. Debt securities issued by governments and financial institutions were each responsible for nearly half of the total outstanding, while corporate debt securities represented a very small fraction (see Figure 7). The total amount of debt securities in the EU-27 was about half the size of that in the US (EUR 41 trillion).

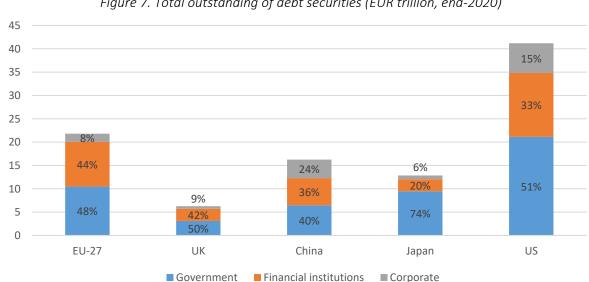
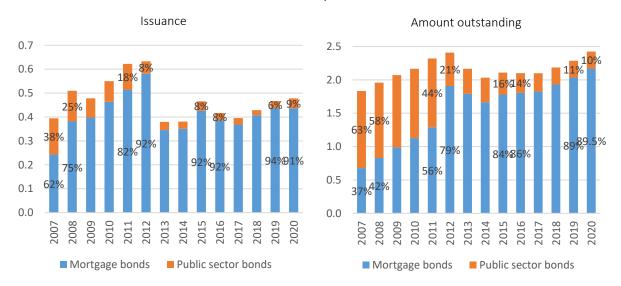


Figure 7. Total outstanding of debt securities (EUR trillion, end-2020)

Source: 2021 ECMI Statistical Package.

Turning to the covered bond market, the amount outstanding increased in 2020 by 6.1 % to EUR 2.4 trillion (see Figure 8, right-hand side). The vast majority of these bonds were covered by residential and commercial mortgages (90 %). Covered bonds with a total value of EUR 478 billion were issued during the year (see Figure 8, left-hand side). The largest issuing country was Denmark (EUR 127 billion), followed by Germany (EUR 59 billion) and Sweden (EUR 53 billion). These three countries collectively accounted for half of the total issuance in the EU.

Figure 8. Covered bonds issuance and amount outstanding in selected EU countries (EUR trillion, 2007-2020)



Note: The countries included are: AT, CY, CZ, DE, DK, EL, ES, FI, FR, HU, IE, IT, LU, LV, NL, PL, PT, SE and SK. Source: 2021 ECMI Statistical Package.

Moving on to securitisation instruments, despite the fact that the Simple, Transparent and Standardised Regulation was implemented in January 2019, so far it did not produced the anticipated recovery in the European securitisation market. A total of EUR 195 billion's worth of securitised instruments was issued in the EU, which was about 10.2 % less than a year earlier (see Figure 9, left-hand panel). Furthermore, this was the second consecutive year since 2018 (EUR 269 billion) in which European issuance declined. The trend for the outstanding amount was similar, which decreased to EUR 993 billion (-14.3 %) in 2020 (see Figure 9, right-hand panel). On top of that, the contrast with the US is striking: US issuance increased (+76 %) to EUR 3.3 trillion in 2020, while the outstanding amount totalled EUR 9.4 trillion (-15 %).

Outstanding Issuance 3.5 12 3.0 10 2.5 8 2.0 6 1.5 4 1.0 2 0.5 0.0 0 2016 2014 2016 2013 2017 201 2012 201 Europe • -US Europe -

Figure 9. Securitisation issuance and amount outstanding (EUR trillion, 2007-2020)

Note: European volumes include transactions from all countries on the European continent, including Russia, Iceland, Turkey and Kazakhstan.

Source: 2021 ECMI Statistical Package.

Regarding the asset mix, EU-27 issuance is mainly related to repackaging residential mortgages and other loans/securities, with the repackaging of loans to small and medium-sized enterprises (SMEs) very limited (see Figure 10, left-hand panel). In 2020, securitisation of residential mortgage-backed securities (RMBS) represented most (44 %) of the total EU-27 issuance, while asset-backed securities (ABS, 39 %) and collateralised debt obligations (CDOs, 12 %) also represented a substantial part of the securitised securities. Turning to the US, mortgage-backed securities accounted for most of the securitisation (85 %) (see Figure 10, right-hand panel).

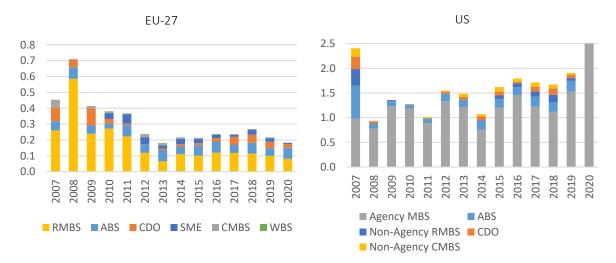


Figure 10. Securitisation by collateral in the EU-27 and the US (EUR trillion, 2007-2020)

Notes: Asset-backed securities (ABS), collateralised debt obligations/collateralised loan obligations (CDO/CLO), commercial mortgage-backed securities (CMBS), residential mortgage-backed securities (RMBS), whole business securitisation/public finance initiatives (WBS/PFI). In the US, agency mortgage-backed securities are defined as securities issued by Fannie Mae, Freddie Mac and Ginnie Mae. This category includes agency CMBS and RMBS.

Source: 2021 ECMI Statistical Package.

3. Exchange-traded derivatives market

In order to hedge their risk exposure and the uncertainty posed by the pandemic, investors relied heavily on ETD markets. Compared with 2019, volumes went up by 43 % in 2020, reaching a record high of 46 billion contracts. Although this trend was observed almost across all asset classes (e.g. equities, foreign exchanges and commodities), contract types and regions, for interest rate (IR) derivatives volumes went down by 24 %. As a result, the annual turnover of IR ETDs went down by 27 % to EUR 1.5 trillion compared with 2019 (see Figure 11). This decrease was registered in all regions: Asia-Pacific (-36 %), North America (-32 %) and to a lesser extent Europe (-8.8 %).

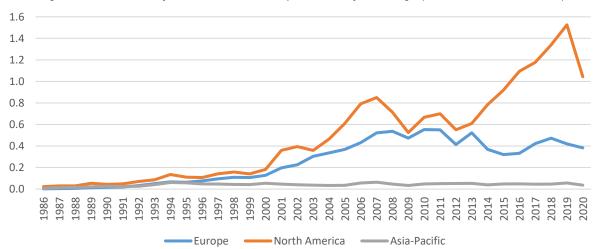


Figure 11. Turnover of interest rate ETDs by location of exchange (EUR trillion, 2000-2020)

Notes: Data refer to yearly total turnover of futures and options. Europe includes the following exchanges: Eurex, ICE Futures Europe, LSE CurveGlobal, NYSE Liffe London, Optionsmarknaden Stockholm AB, Warsaw Stock Exchanges. North America includes the following exchanges: Chicago Board of Trade, Chicago Mercantile Exchange, ERIS Exchange, Mercado Mexicano de Derivados, Montreal Exchange. Asia-Pacific includes the following exchanges: Bombay Stock Exchange, China Financial Futures Exchange, Hong Kong Exchanges and Clearing, Korea Exchange, National Stock Exchange of India, Osaka Exchange, Singapore Exchange Derivatives Trading, Sydney Futures Exchange, Tokyo International Finance Futures Exchange. Source: 2021 ECMI Statistical Package.

Shifting the analysis to exchange-traded commodity derivatives (one of the oldest derivative classes), in 2020 the number of traded contracts increased 37 % to 7.9 billion (see Figure 12, left-hand panel). The vast majority of these contracts (75 %) were traded in China, followed by the US (16 %) and the UK (8.9 %). The trading volume of ETD commodities decreased marginally by 1.0 % to EUR 120 trillion in 2020 (see Figure 12, right-hand panel). The most actively traded contracts with commodities as the underlying asset were futures, which accounted for 94 % of the traded volume.

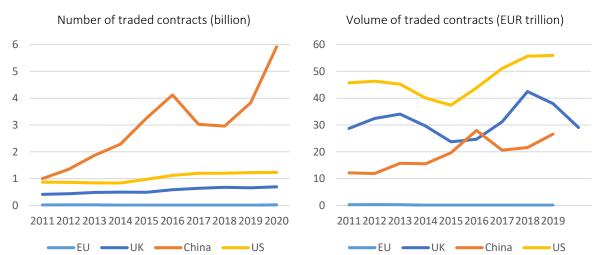


Figure 12. Number and traded value of commodity-ETD contracts by location of exchange (2011-2020)

Notes: Data refer to yearly total turnover of futures and options. Europe includes the following exchanges: Borsa Italiana, Eurex, Euronext and Budapest SE. UK includes: ICE Futures Europe, London Metal Exchange and London SE Group. China includes the following exchanges: Dalian Commodity Exchange, Hong Kong Exchanges, Shanghai Futures Exchange and Zhengzhou Commodity Exchange. The US includes the following exchanges: CME Group and ICE Futures US. Source: 2021 ECMI Statistical Package.

4. Over-the-counter derivatives market

In 2020, the OTC derivatives market expanded 2.6 % to EUR 509 trillion in the notional amount outstanding (see Figure 13)⁹. Interest rate derivatives (IRDs) dominated the market (80 %), followed by currency products (17 %) and to a lesser extent by credit default swaps (CDS) (1.4 %) and equity-linked derivatives (1.2 %). The gross market value of these derivative contracts – which provides a measure of amounts at risk – increased (+34 %) to EUR 14 trillion in December 2020, as a result of the market turmoil induced by COVID (BIS, 2021). Thus, the gross market value represented 2.7 % of the notional amount (2.1 % in 2019).

⁹ Notional amount outstanding refers to the notional value of all derivative contracts concluded and not yet settled.

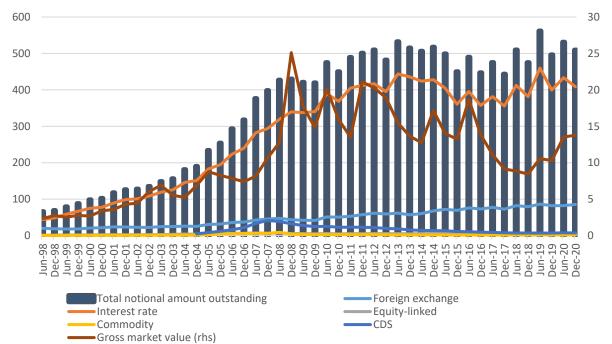


Figure 13. Notional amounts outstanding of the global OTC derivatives market (EUR trillion, 1998-2020)

Notes: The notional amount of outstanding OTC derivative contracts determines contractual payments and is an indicator of activity in OTC derivatives markets. The gross market value represents the maximum loss that market participants would incur if all counterparties failed to meet their contractual payments and the contracts could be replaced at current market prices. The values are presented for June and December.

Source: 2021 ECMI Statistical Package.

Looking at the currency composition of IRDs, the notional amounts outstanding of euro-denominated contracts increased by 11.3 % to EUR 116 trillion in 2020 (see Figure 14). However, since 2013, when euro contracts peaked at EUR 180 trillion and represented 41 % of all outstanding contracts, they have fallen significantly (-35 %), representing 28 % of the global outstanding at end-2020. Since December 2014 the US dollar has been the most preferred currency for IRDs, with dollar-denominated contracts representing 33 % of all contracts ultimo 2020¹⁰.

¹⁰ For the factors that contribute to this development, see Thomadakis (2018a), Tadi and Thomadakis (2019).

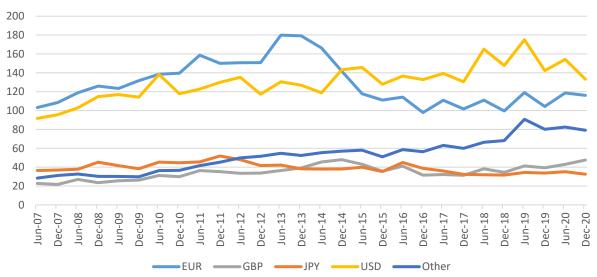


Figure 14. Notional amount outstanding of OTC IRDs by currency (EUR trillion, 2007-2020)

Note: 'Other' refers to contracts denominated in currencies other than EUR, GBP, JPY and USD. Source: 2021 ECMI Statistical Package.

The central clearing rates of IRDs declined in 2020. The share of notional amounts of IRD contracts cleared by central counterparties (CCPs) fell from 77 % to 72 % in 2020 (see Figure 15). By contrast, clearing rates for CDS continued to trend upward and grew from 56 % to 63 %.

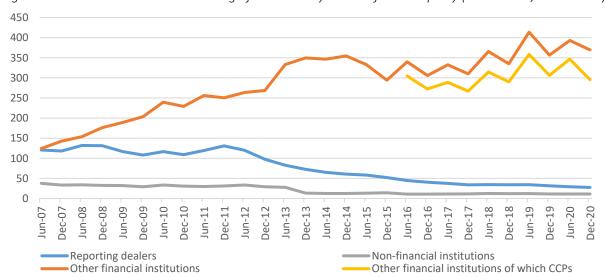


Figure 15. Notional amount outstanding of OTC IRDs by sector of counterparty (EUR trillion, 2007-2020)

Notes: For the first time, in June 2016, BIS captured comprehensive data on positions with CCPs. Whereas in previous years details about financial counterparties were collected only for CDS, at end-June 2016 CCPs were separately identified for all types of OTC derivatives. Previously, CCPs were grouped indistinguishably with all financial institutions other than dealers. Source: 2021 ECMI Statistical Package.

In comparison with ETD contracts, OTC contracts accounted for 89 % of the notional amount in December 2020 (see Figure 16). The remaining 11 % were in ETDs, down 5.4 percentage points from December 2019.

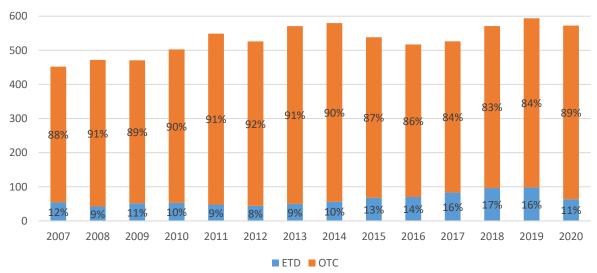


Figure 16. Notional amount outstanding of ETD and OTC derivatives (EUR trillion, 2007-2020)

Source: 2021 ECMI Statistical Package.

5. Investment funds

During 2020, the EU investment fund industry further expanded. The number of investment funds continued increasing (+1.2 %) to 56 036, while the total net assets climbed (+6.3 %) to EUR 16 trillion (see Figure 17). The net assets of undertakings for collective investment in transferable securities (UCITS) reached EUR 9.6 trillion (+6.9 %), while those of alternative investment funds (AIFs) rose (+5.4 %) to EUR 6.4 trillion. In relative terms, the net assets of investment fund managers went up from 108 % of GDP in 2019 to 120 % of GDP in 2020.

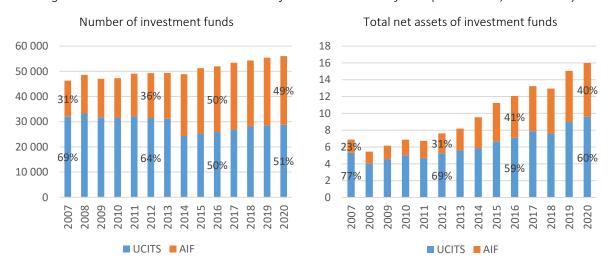


Figure 17. Number and total net assets of EU-27 investment funds (EUR trillion, 2007-2020)

Note: Data refer to the EU-27. *Source*: 2021 ECMI Statistical Package.

Most of the funds (72 %) and net assets (81 %) were domiciled in France, Germany, Ireland and Luxembourg (see Table 1). The net assets of UCITS grew in the majority of the countries, with Cyprus (+15 %), Sweden (+14 %) and Portugal (+13 %) having the largest UCITS net asset growth in 2020. In the

AIF market, the strongest growth was recorded in Slovenia (+31 %) and Greece (+25 %), while the net assets of Belgian AIFs fell significantly (-54 %).

Table 1. Investment fund industry by country of domicile (EUR billion, end-2020)

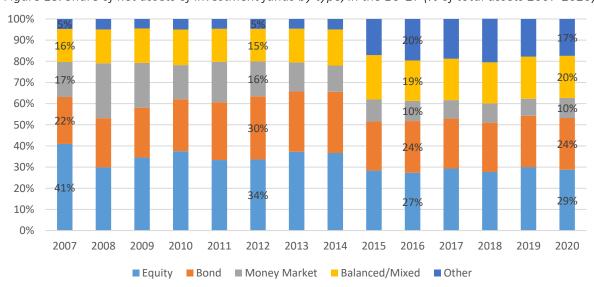
	# of UCITS	# of AIFs	Net assets (EUR billion)	% Δ in 2020 ^{a)}
Luxembourg	10 163	4 427	4 974	5.4
Ireland	4 843	3 105	3 324	9.0
Germany	2 481	4 656	2 511	6.5
France	3 012	7 790	2 067	5.7
Spain	2 248	516	304	-0.6
Other	6 024	6 771	1 751	5.6
EU-27	28 771	27 265	15 995	6.3
UK	2 350	1 029	1 784	1.9

Note: The countries are presented in terms of net assets (UCITS and AIF).

Source: 2021 ECMI Statistical Package.

Regarding the different types of investment funds, the assets of equity (29 %) and bond funds (24 %) represented the largest shares of net assets at the end of 2020 (see Figure 18). Money market funds (9.5 %) and the asset share of balanced/mixed funds (20 %) also represented a substantial part of the net assets value. The remaining funds contained real estate and infrastructure, hedge funds, structured products and private equity funds (17 %).

Figure 18. Share of net assets of investment funds by type, in the EU-27 (% of total assets 2007-2020)



Source: 2021 ECMI Statistical Package.

a) End-2020 compared with end-2019.

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Annex

Methodology and data sources 2021 ECMI Statistical Package

The ECMI Statistical Package retrieves, compiles and analyses data from publicly available sources and reports as follows:

- Section 1 WFE, FESE and individual trading venues;
- Section 2 BIS, ECB, ECBC, AFME, WFE, FESE and individual trading venues;
- Section 3 BIS, WFE, FESE and individual trading venues;
- Section 4 BIS and WFE;
- Section 5 EFAMA, OECD, Pensions Europe and Insurance Europe; and
- Sections 6 to 8 Eurostat, IMF and World Bank.

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